

ROUND 11 CAPITAL PROJECT NOMINATION FORM
LAKE TAHOE FEDERAL SHARE EIP CAPITAL PROJECTS
APPENDIX K

Project Name:	South Shore Hazardous Fuels Reduction & Healthy Forest Restoration	EIP Number: (Required)	10177
Federal Agency Sponsor: (Required)	USFS - LTBMU	Contact:	Scott Parsons
Threshold:	Vegetation	Phone Number:	(530) 543-2687
Threshold Standard:	Common Veg/Hazardous Fuels	Email:	sparsons@fs.fed.us
FUNDING REQUESTED IN THIS ROUND:		\$ 3,025,000	

Federal Share EIP Consideration

Select "yes" or "no" for each question. If you have a "yes" response, briefly describe. **Projects must meet one or more of these 5 items.**

- 1. Does the project involve federal land?** Yes No
If yes, is the federal land involved important to successful implementation of the project? ☒ ☐

This project is located solely on National Forest System lands within the Lake Tahoe Basin. This project can only be implemented on National Forest System land.

- 2. Is this project identified in the EIP? If yes, please ensure the EIP number is identified in the above project information box. If no, provide a description of the projects contribution to the EIP program.** Yes No
☒ ☐

This project is listed in the EIP as number 10177.

- 3. Does the project involve the conservation of a federal or regional threatened, rare, endangered, or special interest species?** Yes No
☒ ☐

Included in this project is the objective to protect or improve habitat for Forest Service Management Indicator Species (MIS) as well as sensitive species. Stands have been identified for reducing high fuel loads within California spotted owl and northern goshawk Protected Activity Centers (PACs) - areas identified for nesting and foraging habitat. Using an active management approach for treating these PACs, small trees (less than 14" diameter at breast height) would be hand thinned and surface fuel loads treated to a level that would reduce predicted fire behavior so that treated stands would continue to provide optimal nesting and foraging habitat and likely survive a wildfire.

- 4. Does the project involve an identified federal interest such as the detection and eradication of non-native invasive species (aquatic or terrestrial)?** Yes No
If yes, identify the species? ☒ ☐

Field surveys were conducted to detect terrestrial invasive species. Based on these surveys, proposed hazardous fuels reduction treatments would be implemented to minimize the further spread of invasive species as well as project monitoring to ensure that if new locations are detected, control measures can be taken.

- 5. Does the project contribute to supporting implementation of capital projects in the EIP? Such projects that fulfill this function would include technical assistance, data management, and/or resource inventories?** Yes No
☐ ☒

This project proposal is for direct federal implementation of hazardous fuels reduction.

Check all Capital Focus Area(s) that apply:

- ☒ 1. **Watershed and Habitat Improvement**
- ☒ 2. **Forest Health**
- ☐ 3. **Air Quality and Transportation**
- ☐ 4. **Recreation and Scenic**

Check all that apply (must meet a minimum of one category):

- ☒ 1. **Continued emphasis on forest ecosystem health/fuels reduction projects considering the LTBMU Stewardship Fireshed Assessment and Lake Tahoe Basin Multi-Jurisdictional Fuels Reduction and Wildfire Prevention Strategy.**
- ☒ 2. **Continued implementation of projects approved in Rounds 5 through 10 which implement the EIP. Project proposal should clearly describe the phase/product being produced along with the consequence of not completing the project phase proposed for Round 10.**

List Rounds and funding:

SNPLMA:

Lake Tahoe Round 7 for \$1,800,000 to accomplish 1,000 acres of treatment;
Lake Tahoe Round 8 for \$5,800,000 to accomplish 3,000 acres of treatment;
White Pine Round 8 for \$2,695,000 to accomplish 2,550 acres of treatment;
Lake Tahoe Round 9 for \$2,450,000 to accomplish 1,322 acres of treatment; and
Lake Tahoe Round 10 for \$3,750,000 to accomplish 1,894 acres of treatment
Total of 9,766 acres of treatment funded with previous phases.

- ☒ 3. **Project is consistent with and contributes toward TMDL pollutant reductions within the four source categories (atmospheric, urban & groundwater, forested uplands, and stream channel). *NOTE: If “yes”, then please respond to questions in the accomplishments section of the nomination proposal.***
- ☐ 4. **Control of aquatic invasive species and prevention and/or detection of new aquatic invasive species.**

Project Nomination Proposal Outline

Project Summary (a brief summary which clearly describes the proposed project –maximum 200 words)

- Summarize ONLY this Round 11 project.

Continue to implement hazardous fuel reduction and forest ecosystem health treatments on approximately 1,551 acres out of a total of 11,661 total treatment acres for the south shore area of the Lake Tahoe Basin. These fuel reduction treatments would cover the National Forest System Lands from Emerald Bay east to Stateline and would focus on the Urban Wildland Interface. Proposed treatments would be accomplished through the use of agency administered contracts, which may include agreements with Nevada Fire Safe Council, Lake Valley Fire Protection District, Fallen Leaf Fire Department and South Lake Tahoe Fire Department. These treatments would reduce the level of hazardous fuels within the defense and threat zones. This would be accomplished through the use of hand thin, pile and burn as well as mechanical thin and biomass removal contracts on both upland and riparian areas. This proposal would provide funding for the sixth of seven phases of implementation to complete fuel reduction treatments in the south shore area of Lake Tahoe. Included in project implementation is contract administration and project monitoring.

Project Description

Introduction

- Provide project background which explains the situation and state the problem and how it will be addressed.

***Note:** Focus needs to be the project in Round 11 not a history of an ongoing project or program.*

Effective fire suppression, repeated drought cycles, insect infestations, and tree diseases have combined to produce conditions consisting of dense brush understory, significant ladder fuels, over-stocked forest stands, expanding areas infected with dwarf mistletoe, extensive areas of down and standing dead trees, and conifer-invaded aspen stands and meadows. These conditions and the lack of historic or prescribed fire can be characterized by a Fire Regime Condition Class (FRCC) of III, which represents a severe departure from historic fire return intervals and stand structure on over 50 percent of the landscape. Effects of this condition class can be seen in previous fires in the Lake Tahoe area that have burned with devastating results, including the Angora and Washoe fires in 2007 that burned over 250 homes and 3,000 acres. Smaller human and lightning caused fires are also frequent in this area (Basin-wide occurrence of wildland fires from 1973 to 1996: 1,865 fires for 851 acres).

South Lake Tahoe, California and Stateline, Nevada have been listed in the Federal Register as “Communities within the Vicinity of Federal Land That Are at Risk From Wildfire.”

Thinning and fuel reduction treatments in this project would cover the National Forest System Lands on the south shore of Lake Tahoe from Emerald Bay east to Stateline, Nevada and focus on the Wildland Urban Interface (WUI). The treatments identified will improve the FRCC by moving from a severe departure to within the historic mean (Class III towards Class II or I). The South Shore project area was derived from priority areas identified in the Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (Fuels Strategy). The Fuels Strategy is supported by the California and Nevada Tahoe Basin Fire Commission and their recommendations to the Governors of California and Nevada. Implementation would consist of either a stewardship or service contract package, which would include whole tree removal utilizing ground-based equipment such as mechanical harvesters and skidders or cut-to-length harvesters and log forwarders. Additional service contract work would include hand thinning of smaller trees, piling and burning of ground fuels and mastication. Hazardous fuel reduction treatments in this phase of the project would occur on approximately 1,551 acres.

- Describe what Round 11 is specifically funding; list the number of years the requested funding will cover; briefly describe how this project links into previous and future projects, and identify other round funding.

NOTE: Focus should be on finishing current/phased projects. If project is new in Round 11, clearly identify if the project is for planning or implementation and how it will be completed with Round 11 funds. Identify if Round 12 or other funds will be needed to complete the project. Please identify total non-SNPLMA funds that are being contributed/dedicated to the proposed Round 11 project and the source of those funds.

This round of funding for this project would specifically cover hazardous fuels reduction treatments utilizing hand thinning, piling and pile burning or biomass removal on an estimated 1,119 acres. An additional estimated 432 acres of hazardous fuels reduction treatments utilizing mechanical equipment to thin trees remove material including biomass and masticate slash and brush. These treatments include additional forest health benefits in Stream Environment Zones, aspen stands, and both Spotted Owl and Northern Goshawk habitats.

The requested funding will cover six years to allow the completion of hand and mechanical contract work, curing of slash piles for burning and the actual burning of slash piles.

This project links to SNPLMA Lake Tahoe Round 7 for \$1,800,000; Lake Tahoe Round 8 for \$5,800,000; White Pine Round 8 for \$2,695,000; Lake Tahoe Round 9 for \$2,450,000; and Lake Tahoe Round 10 for \$3,750,000. These projects have funded the first through fifth of seven phases of project implementation.

SNPLMA Lake Tahoe Round 7 provided funding for the completion of the planning and NEPA for this project. The environmental analyses covered under this and previous phases include Heavenly SEZ Demo CE (23 acres), Kingsbury CE (1,500 acres), and South Shore EIS (10,138 acres) for a total of 11,661 acres of National Forest system land for hazardous fuels reduction and forest health treatments.

- Describe the “readiness” of this project to move forward (urgency, capacity, capability, environmental documentation, interagency agreements, etc)

The environmental analysis (EIS) for this project is scheduled for completion in early 2010. This project has been identified as a high priority project for the Lake Tahoe Basin Management Unit due to dense forest stands and high fuel loads within proposed treatment areas adjacent to urban core areas. Project implementation under previous funding is scheduled to begin in 2010. For this Round 11 project preparation of treatment areas for contracts would be conducted in 2011 with treatments beginning in 2012.

Describe partnerships for this project. (if applicable, project should identify committed/secured partner funding and/or other partner contributions (describe) and how it is integrated into the project)

This project is consistent with the Fuels Strategy and partners with the Tahoe Regional Planning Agency (TRPA), Lahontan Regional Water Quality Control Board, Lake Valley Fire Protection District, South Lake Tahoe Fire Department, Fallen Leaf Fire Department, and the Lake Tahoe Basin Region of the Nevada Fire Safe Council.

Note: The form requests information about project goals, objectives, accomplishments, and questions the program is designed to answer across several different sections. These issues are closely linked and your individual responses should provide a cohesive description.

Goal – Purpose and Need (“larger” statement of future expected outcome – usually not measurable)

The goals of this project are to restore fire dependent healthy forest ecosystems, enhance fire suppression capabilities, and protect life and property.

Objectives (specific measurable statements of action which when completed will move towards achieving the goal)

Note: Objectives will form the basis for the milestones/deliverables to be identified in Appendix B-8

- Describe how fulfilling objectives will contribute to the achievement of one or more environmental thresholds (air quality, water quality, soil conservation, vegetation, fisheries, wildlife, scenic, noise, recreation). Provide measures if applicable. For example: acres treated, miles of stream restored for each objective.

The objectives are to reduce standing and down fuel loads and thin dense forest stands through approximately 1,551 acres of hand thin/pile and burn, mechanical thin, biomass removal and mastication contracts. Upon completion of these contracts, the vegetation condition will be improved through the creation of forest stand structure that has the fire resistance, species richness, abundance and pattern identified for the Common Vegetation Threshold. Forest stands will be treated so that older and larger trees are maintained so that the time required for these stands to develop into late seral/ old growth ecosystems will be accelerated for the Late Seral/Old Growth Ecosystems Threshold. Forest Stands within the wildland urban interface that support spotted owl and goshawk habitat will be treated to improve the forest structure (amount of down fuels and stand density) needed to sustain habitat over time for the Wildlife Threshold. Design criteria would be included when contracts are implemented to protect water quality and soil conservation. Project implementation would reduce the risk of water quality and soil degradation should the area be affected by a wildfire. Modeled fire behavior indicates that flame lengths and fire intensity are reduced after stand treatments similar to the ones proposed for this project as supported by the conclusions documented in “An Assessment of Fuel Treatment Effects on Fire Behavior, Suppression Effectiveness, and Structure Ignition on the Angora Fire”, August 2007. When completed the Fire Regime Condition Class would be improved from Class III to a lower Class. This project would help maintain the Water Quality and Soil Conservation Thresholds should a wildfire affect this area.

- Describe the estimated environmental risks from unintended consequences of the proposed project (if applicable).

There are no estimated risks from unintended consequences, however, the South Shore Project identifies design features to reduce environmental risks from unintended consequences to levels determined to be acceptable through inter- and intra-agency review and public comments.

Accomplishments

- Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project)

Note: Differentiate between direct and/or primary project effects and secondary and/or overall watershed effects.

Complete both hand and mechanical hazardous fuels reduction contracts within defense and threat zones to reduce fuel loads and improve forest health over approximately 1,551 acres of National Forest System lands.

The primary benefits of project implementation include the following:

- Reduction in stand densities and fuel loads to provide for defensible space adjacent to private property from wildfires;
- Reduction in stand densities to reduce stress from drought and competition for nutrients, which subjects them to widespread forest dieback from insects and diseases;
- Restoration of meadows and aspen stands through the removal of encroaching conifers in order to reduce the potential for catastrophic wildfire to spread through these areas, to promote maintenance of meadows and aspen stands consistent with the TRPA and Pacific Southwest Research Station “Aspen Community Mapping and Condition Assessment Report” (USDA FS, PSW-GTR-185), and to provide wildlife habitat for species that are dependent on meadows and/or aspen.

Secondary benefits anticipated to result from project implementation include:

- The composition, species richness, and function of forested areas and associated wildlife habitat and plant communities will be improved;
- Forests will be in a condition that are fairly open and dominated primarily by larger, fire tolerant trees within the WUI defense zone;

The risk of adverse effects from wildfire to soil productivity and water quality will be reduced.

- Describe how the project results/accomplishments will be communicated and made available to the public.

Monitoring activities and results will be summarized in the LTBMU Forest Monitoring Program Annual Report. Project and program specific monitoring reports will be produced within one to five years after project implementation, depending on the variables being monitored and the questions to be answered. In addition the LTBMU will periodically produce a Comprehensive Five Year Evaluation Report as part of the Forest Plan Monitoring Requirement. All monitoring reports will be posted on the LTBMU external website. The audiences (public, agencies, and research community) will be informed through appropriate email lists, and public and interagency meetings.

- If you checked “yes” for the project being consistent with and contributes to TMDL pollutant reductions please consider and integrate the following in the project description:

- a) Describe whether, and how, the project demonstrates advanced, alternative, or innovative practices.

This project proposes to use hand treatment and low impact innovative technology equipment within stream environment zones of the project to treat hazardous fuel loads that are above desired levels and where conifer encroachment is displacing native riparian species such as aspen, alder and willow. Applying results learned from the Heavenly SEZ Demonstration Project, low impact innovative technology equipment used in this project will minimize the disturbance to soil hydrologic functions.

- b) If project includes project level monitoring, describe ability of proposed monitoring strategy to contribute to the state of TMDL knowledge. Also describe if purpose of the capital project is to conduct data collection and/or analysis related to Lake Tahoe clarity.

This project does not propose specific monitoring to contribute to the state of TMDL knowledge.

c) Describe treatment approach for reducing pollutants and/or measures to address connectivity between pollutant sources and Lake Tahoe or its tributaries. Identify target pollutants, and, to the degree feasible, provide quantitative estimates of project effectiveness at reducing pollutant loads (and/or a commitment to provide post-project estimates).

This project would protect soils and stream environment zones (SEZ), which includes riparian and wetland areas, through incorporating best management practices as a contract requirement. Best management practices would include road maintenance and reconstruction to provide road surface stabilization, proper road drainage through installation of waterbars or rolling dips, maintenance or upgrading of drainage structures and two permanent crossings (lower Saxon & Nez Perce), ripping/sub-soiling of temporary roads, limiting operating periods to dry soil conditions, protection of unstable lands, streamcourse and meadow protection, control of tractor skidding and log landing location, erosion prevention and control measures, and erosion control on skid trails. Where riparian vegetation within SEZs is being displaced by conifer encroachment, treatments would remove conifers using innovative technology vehicles and hand treatments to avoid or minimize the impact to soils and native vegetation. Conifer removal would enhance and restore native riparian vegetation (e.g., aspen restoration) to provide optimal water quality and enhance wildlife habitat. These measures would reduce the likelihood of fine sediments from entering waterways.

d) If appropriate, describe whether, and how, the project can be combined or coordinated with other TMDL implementation projects.

N/A

Monitoring

- Describe the project monitoring that will be implemented as part of this project including:
The monitoring to be implemented in this proposal addresses short term implementation and effectiveness (≤ 3 yrs post project). Long term project effectiveness monitoring (>3 yrs post project) for all LTBMU projects and programs will be addressed through either 1) The Forest Above Project level monitoring program funded through the USFS SNPLMA NEPA Resources Surveys project, 2) LTBMU base appropriated funds for Forest Plan Monitoring), or 3) TSC coordinated research projects.

- List the questions the monitoring program is designed to answer.

Were soil and water quality protection BMPs implemented as planned/designed and are they effective at protecting soil and water quality? What are the effects of fuels reduction practices on soil and water quality?

- Describe any coordination with, or input from, the science community on monitoring and adaptive management that has occurred on the development of this nomination and what changes (if any) to the project were made as a result of this input.

Monitoring protocols were developed with input from USFS researchers. No input was solicited or received for this project nomination.

- Describe the methods and strategies (i.e. monitoring, research, or both) that will be used to verify whether the project goals and objectives have been met? (*Note: A detailed monitoring plan and/or research plan is not required, however, enough detail must be provided to allow someone that is unfamiliar with the project to understand and evaluate the proposed methods and strategies.*)

The South Shore Project Final Environmental Impact Statement describes the monitoring that is included for this project. Two types of monitoring are proposed. **Implementation Monitoring** consists of visual monitoring of project treatment areas, roads, stream crossings, landings, etc., to ensure that all management practices and design features are implemented, including those designed to prevent sediment delivery and protect water quality (e.g., erosion control measures, riparian buffers, waterbars, critical dips) are in place as prescribed.

Effectiveness monitoring consists of visual monitoring to evaluate the effectiveness of the prescribed design features and management practices at meeting their objectives. It includes evaluating the effectiveness of management practices designed to prevent sediment delivery and protect water quality (e.g., erosion control measures, riparian buffers, and waterbars).

The monitoring requirements are separated into specific resource areas:

- Soil, Water and Riparian Resources Monitoring
 - Monitoring soil moisture would be used to determine when soil conditions are suitable for mechanical equipment operations, in order to avoid detrimental compaction.
 - Pile burning in SEZs is new to the Lake Tahoe Basin and their effectiveness at protecting soil and water quality in SEZs has not been quantified. For the first two years after piles are burned, monitoring would be used to determine whether the design criteria were successful in avoiding significant impacts to soil stability, soil productivity, water quality, and riparian plant growth.
 - Implementation monitoring would occur in each treatment unit, as well as other areas affected by the South Shore project such as access roads, staging areas, water supply areas, etc. This would include completing a checklist that contains BMPs and design features contained in the NEPA and contract documents that apply to soil and water quality protection.
 - Best management practice evaluation program (BMPEP) protocols developed by the USFS and CA State Water Resources Control Board (USDA FS 2002) would be followed to provide qualitative information about whether BMPs are implemented as prescribed in the NEPA document (and subsequent contract and permit requirements and specifications) and that they are effective in protecting soil and water resources.
- Aquatic Resources Monitoring
 - Stream Temperature and Shade monitoring - the objective of fuel treatments in SEZs (along or adjacent to perennial flowing tributaries) is to have no measurable increase in stream temperature as a by-product of conifer removal. Therefore, the critical monitoring question is, will the decrease in density of live conifers result in a decrease in stream shade and a measurable increase in stream temperature?

- Transportation Monitoring
 - The mechanism for monitoring and documenting the implementation of all transportation design features and BMPs would be the implementation monitoring checklist, previously described under the Soils, Water, and Riparian Resource section.
- Sensitive Plant Monitoring
 - Monitoring would occur during project implementation to avoid impacts to sensitive plant locations.
- Invasive Weed Monitoring
 - Monitoring would occur during and after project implementation to ensure additional weed species do not become established in the areas affected by the project and to ensure that known weeds do not spread.

The soil quality monitoring program is conducted on a programmatic basis, i.e. not every unit or project is monitored. However units are selected for monitoring that represent either a unique management practice or soil characteristics, not previously monitored. Soil quality measurements include Ksat, bulk density, and soil cover. These data are then input into the WEPP model to estimate runoff and erosion response from the management practice on that unit (see previous analysis utilizing these protocols on the LTBMU website for the Ward and Heavenly SEZ projects). It has not been determined at this time whether specific units from this project will be selected for this more in depth soil quality monitoring.

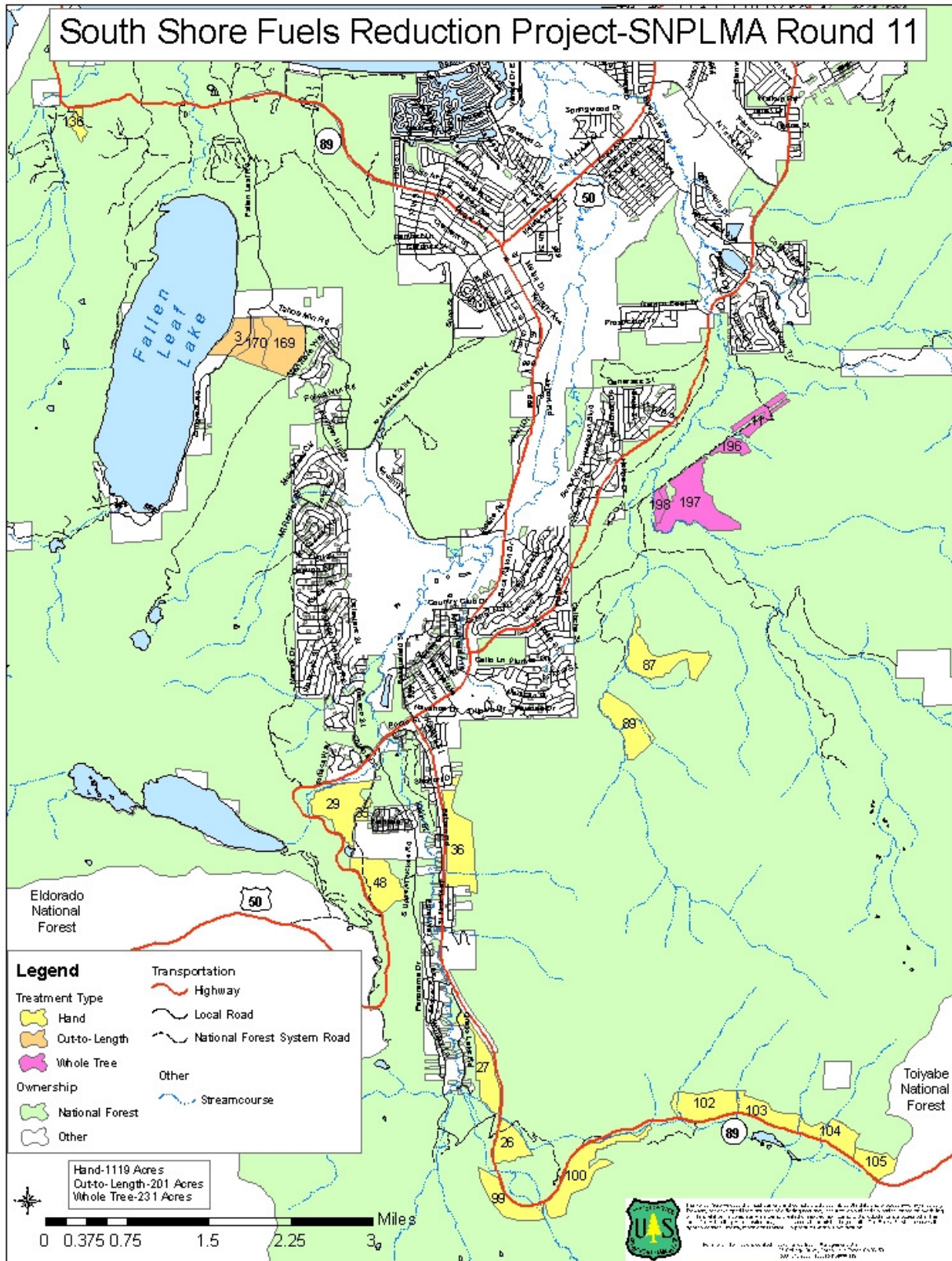
- Describe whether the monitoring or research associated with this project fits into or is part of a larger monitoring or research program.

The BMPEP is part of a Regional Monitoring Program within the Forest Service, and may be adopted nationally. All protocols are part of the large Soil and Water Quality Monitoring Program at the LTBMU.

- Describe how information from the monitoring and/or research will be used to improve the continued performance of the proposed project or future similar projects.

In the short term BMP information collected is used to fix or redesign individual project BMPs that are rated as unsuccessful. In the long term, BMP information is used at both the local and regional level to develop solutions to chronic problems identified in either implementation or effectiveness of BMPs. Information from the soil quality monitoring program will be used to validate whether and under what conditions different fuels reduction management practices can be utilized with the Tahoe Basin without causing adverse impacts to soil or water quality.

Figure 1, Project Area



Appendix B-8

LAKE TAHOE RESTORATION PROJECTS ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES

Project Name:	South Shore Hazardous Fuels Reduction & Healthy Forest Restoration	Agency:	USDA Forest Service
Prepared by:	Scott Parsons	Phone:	530-543-2687
SNPLMA Project #:		EIP #:	10177

Identify estimated costs of eligible reimbursement expenses:

1. Planning, Environmental Assessment and Research Costs (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)	\$ 20,000	<1 %
2. FWS Consultation – Endangered Species Act	\$ 0	0 %
3. Direct Labor (Payroll) to Perform the Project	\$ 230,000	8 %
4. Project Equipment (tools, software, specialized equipment, etc.)	\$ 10,000	<1 %
5. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ 7,000	<1 %
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ 16,000	<1 %
7. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ 2,307,000	76 %
8. Other Direct and Contracted Labor: Agency payroll for the Contracting Officer to do project procurement, COR, Project Inspector, Sec. 106 Consultation if required, NEPA Lead, Project Manager, Project Supervisor, and subject experts to review contracted surveys, designs/drawings, plans, reports, etc.; Also covered is the cost to contract for a Project Manager and/or Project Supervisor if contracted separately from other project contracts)	\$ 75,000	2 %
9. Other Necessary Expenses (see Appendix B-9)	\$ 360,000	12 %
TOTAL:	\$ 3,025,000	100 %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Prepare Field Work, Advertise and Award Contracts	12/1/2011
Complete Hand Contract Work Including Contract Administration and Inspections	11/1/2013
Complete Pile Burning Work	6/1/2016
Complete Mechanical Contract Work Including Contract Administration and Inspections	6/1/2016
Begin close-out of project	7/1/2016
Final Completion Date: 12/31/2016	